Guest Editorial

Interprofessional Education for Interprofessional Collaborative Practice

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Interprofessional Collaborative Practice (ICP) has evolved as a key intervention for efficient and effective promotion of health[1] apart from treating patients, particularly those suffering from complex disorders and need multi-professional care.

ICP, sometimes also termed as Interprofessional Practice (IPP), "happens when multiple health workers from different professional backgrounds work together with patients, families, carers and communities to deliver the highest quality of care across settings" [2].

ICP responds to patients' needs comprehensively in a coordinated and safe manner using available resources more productively and efficiently[3]. By combining preventive, curative, rehabilitative and palliative services with health education, the incidence and prevalence of disability can be reduced significantly[4]. ICP is patient friendly and a humane approach which reduces duplications, gaps and interruptions in provision of health-related services by replacing multiple visits to specialists' clinics on different occasions with a single visit to a combined clinic where all the relevant healthcare providers see the patient in a coordinated manner. This approach also provides the opportunity for healthcare providers to deliberate among themselves and make an inclusive plan for managing the patients collaboratively.

Examples of ICP include "Cerebral Palsy Clinics" where paediatricians, physiotherapists, occupational and speech therapists and orthopaedic surgeons examine the patients in a central clinic during the same visit; clinics for diabetic patients and inpatient ward rounds where professionals from multiple disciplines including Pharmacy and Social Services join together to provide comprehensive and inclusive care to the patients.

In Malaysia, Medication Therapy and Adherence clinics were established in 2007with the aim of improving the level of compliance to medication among patients suffering from chronic diseases such as diabetes, asthma and epilepsy. These clinics also helped patients who were receiving anticoagulant or methadone replacement therapy. Currently the pharmacists also join the ward rounds in medical and surgical wards of the major hospitals and play their part in the patient care[5].

ICP is based on the principles of interprofessional communication, interprofessional teamwork, team-based practice, respecting the roles and responsibilities of all the healthcare providers, mutually appreciating each other's strengths and boundaries and maintaining the dignity of the patients and their families[6]. On the other hand, in multi-disciplinary model, the healthcare is provided without much collaboration among the disciplines and each health professional provides services independently with little or no communication with each other. Thus, the patients have to visit the different clinics at different times resulting in multiple visits to the same health facility over days.

The effective implementation of ICP needs to be supported by the evidence-based policies and governance structures, health system infrastructures including multi-professional practice centres, recognition of skills and attributes of individual professionals and

educational programmes and opportunities promoting and facilitating multi-professional learning[4].

The term "collaborative practice-ready workforce" is used to describe the healthcare providers who have accomplished their training successfully through Interprofessional Education (IPE).

What is Interprofessional Education?

"IPE occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes"[2].

IPE is a planned learning that mainly takes place when students from different disciplines work and learn together i.e., workplace learning. It is different than the shared learning or multi-profession education where students from various disciplines with different perspectives are taught together a common topic at a common place or trained on a particular skill or problem-solving exercise e.g., medical and dental students learning anatomy of head and neck together in a classroom setting. The IPE achieves its desired learning outcomes through the collaborative work-based learning by utilizing knowledge and skills of all the team members collectively.

IPE demands an interactive element in the learning. It is the very nature of the IPE that learning occurs through discourse, deliberation and argumentation among the participants. Shared listening alone does not lead to Interprofessional Learning[7].

Presently most of the institutions are following uni-professional education where all the students in the cohort belong to the same profession (e.g., medical doctors), are taught the same content and trained in the same skills and behaviours using the same methods of teaching and learning.

Why we need to implement Interprofessional Education?

A workforce working collaboratively with relevant professional partners ensures the patients' safety and better quality of health care delivery. IPE by enabling interprofessional learning in the classroom and workplace based contexts can bring about the changes required for the development of such an effective workforce[8].

Provision of comprehensive health care requires managing complex situations and needs team efforts hence requiring the training of healthcare providers as a team and not as individuals. Health care is a team effort, so why keep training for solo sprints – question the authors of book "Foundation of Interprofessional Collaborative Practice in Health Care"[9].

The goal of IPE is to prepare health professionals with the knowledge, skills and attitudes necessary for ICP. After learning how to work inter-professionally, the students are equipped to work as members of a collaboratively working team and can join such workplaces confidently.

To prepare the groundwork for ICP that will ultimately improve the standards of healthcare, the implementation of IPE at appropriate juncture during the training is critical[5]. Understanding the professional roles of each member of the team and recognising the boundaries earlier in the "career" facilitates the building of effective healthcare providers teams[10]. IPE has been shown to improve ICP and self-efficacy on interprofessional relationships by providing opportunities for interaction among different healthcare providers[11].

In their systemic review of 21 IPE related studies, Hammick et. al. (2007) reported diverse but generally positive outcomes ranging from favourable reactions to improved patient care[12].

Models of implementing Interprofessional Education

IPE in medicine is focused on the patients, their families and caregivers[13,] therefore its implementation is mainly in workplace-based environment. For successful implementation of IPE, it is crucial to have clearly defined learning outcomes which are constructively aligned in the curriculum. The workplace-based environment requires involvement of all health care disciplines such as Nursing, Pharmacy, Physiotherapy, Speech therapy, Occupational therapy, Dental surgery and others.

To ensure that each participating faculty achieves sufficient exposure of vital concepts related to IPE, the National University of Singapore designed a two-pronged approach by designing Interprofessional Core Curricula (ICC) and Interprofessional Enrichment Activities (IEAs). The ICC is compulsory and is embe-

dded in the curricula of all relevant faculties whereas IEAs are optional but promote and incentivize participation in cross-faculty activities within the IPE framework of competencies. IEAs are conducted multiple times at different times of the year to circumvent the snags related to timetabling[14].

The hybrid model adopted by King Abdulaziz University Saudi Arabia divides IPE curriculum for Medicine and Nursing into three phases: Early (nursing year 2 & medicine year 2); Mid (nursing year 3 & medicine years 3&4); Late (nursing year 4 & medicine year 5&6). This curriculum runs vertically throughout the nursing and medical undergraduate programmes.

While restructuring its curriculum for undergraduate medical students, the National University of Malaysia (UKM) identified 11 learning outcomes (LOs). Of these three LOs are directly and another four are closely related to ICP. The three LOs directly related to ICP include the abilities to:

- Work synergistically, enthusiastically and honourably in multi-professional teams and take up leadership roles as and when required.
- Lead other healthcare providers in promoting health and preventing diseases collaboratively.
- Demonstrate sensitivity and caring behaviour to the needs of oneself, patients and their care-givers, peers and the members of the society.

In the UKM the IPE has been implemented through two modules namely: "Comprehensive Health Care" module during which the concepts of IPE are presented precisely and comprehensively and "Working Together as a Health Care Team" module. Moreover, multiple disciplines are brought together through implementation of Interprofessional Problem-based Learning sessions (IPBL)[5].

Other methods of implementation include students' rotations during their clinical postings; fixing one afternoon every week for IPE activities, retreats or "away days", elective postings and community placements and residential IPE. During rotations a group of students from one discipline (e.g., MBBS) join students of other discipline (e.g., physiotherapy) and vice versa during their practical work sessions either in the wards or in out-patient departments[15].

The "New Generation Project" at the University of Southampton and University of Portsmouth, aimed at developing and executing an IPE programme for students of 11 health professional courses including: audiology, diagnostic radiography, medicine, midwifery, nursing, occupational therapy, pharmacy, physiotherapy, podiatry, therapeutic radiography and social work. The goals of the project were to create opportunities for students to learn together, appreciate the contributions made by different professions to the betterment of the patients and become aware of the importance of roles played by each profession[16].

For effective facilitation of IPE sessions, the competence and confidence of the staff members plays a crucial role[12] thus calling for staff training. Equally important is the training of students whose eagerness and the level of readiness for participation influences the successful conduct of the educational activities. A validated questionnaire "Readiness for Interprofessional Learning Scale (RIPLES)" can be used to assess the readiness of students[17].

Teaching/learning methods in Interprofessional Education

Barr (1998) described three types of professional competencies: Common competencies; Interprofessional collaborative competencies; and Individual professional competencies. Common or generic competencies include: Teamwork; Communication skills; Ethical practice; Learning and reflection; Roles and responsibilities; and Focus on patient, family and community[18].

The relevant competencies described by the General Medical Council of UK[19] include: (a) recognising and respecting the professional skills and contributions of other healthcare and social care providers; (b) appreciating the roles played by the interdisciplinary teams in providing safe and comprehensive care; (c) working with peers for the best interests of the patients by providing complete information about the patient while handing over the responsibility and by exercising adjustability to the situation and by employing problem-solving skills; (d) demonstrating good teamwork through working harmoniously with the peers while performing different roles and responsibilities including leading the team and accepting the leadership of others.

For IPE the appropriate topics and activities are chosen based on the requirements of the participating disciplines and learning outcomes. Most of the activities are carried out on work places whereas discussions can also be held during sessions such as IPBL, case-based learning and team-based learning.

Assessment in Interprofessional Education

A successful implementation of IPE is assessed by measuring the intellectual and attitudinal changes that occur in the students after going through a programme based on its approach and principles. The participating students are expected to comprehend the basic concepts and principles of each partaking discipline and be conversant with the mental approach and the basic terminologies used in these specialties. Consequently, their dealing with other disciplines demonstrates an approach which is based on the combination of inputs made by the participating disciplines. This results in modification of the original approach of all the partaking specialties.

Hammick et. al. classified the levels of IPE out-comes as reaction on learning experience, change in perception and attitude, accomplishment of knowledge and skills, modification in behaviour, alteration in the organizational working approach and benefits to patients[12].

It is expected that after going through the IPE programmes, the graduates will be willing to exchange viewpoint, ready to share the responsibility, recognise the interrelation of professional roles, strategize for improving collaboration by tackling the facilitating and inhibiting factors in national and local contexts; negotiate effectively with other agencies and professionals to improve collaboration, identify situations where collaboration needs development and act accordingly[20].

The level of achievement of learning outcomes can be assessed in a number of ways such as continuous assessment, workplace-based assessment, 360° assessment, peers' assessment, supervisors' report, portfolios, projects, self-reflection and self-assessment.

Challenges in implementation of Interprofessional Education

A strong leadership and a high level of commitment of all the stakehoders is essential for implementation of IPE as it involves multiple disciplines, infrastructe and human resources. The prospect of instituting and implementing any initiative such as IPE becomes brighter, if the directive is issued from the higher authorities and the prospect of making the change sustainable is brighter, if the faculty is sincerely convinced about the need and benefits of the change.

Staff development is crucial and should bring together all the teachers from the involved disciplines. Apart from deliberating on the specific ways and methods required for implementation, open discussions should take place to address any misgivings and concerns. Similarly, students' agreement and readiness is also essential. Many students may think it as waste of time as they are more concerned about their specific disciplines and examinations[10].

As it involves bringing together students from different disciplines, the timetabling becomes a major issue and needs to be sorted out by the administrative and academic staff of the involved disciplines. It becomes a big issue if the involved disciplines are located at different places geographically.

Implementation of IPE will require some additional facilities as well as re-allocation of existing resources and need a careful planning with the help of disciplines involved in the programme.

Some significant changes may be required in the existing curriculum and assessment system. The relevant disciplines along with the help of medical educationists would need a thoughtful discussion to institute the changes without compromising on the high standards of training in the primary disciplines.

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